

WHAT IS CLAIMED IS:

- 1                   1. A method of preventing or treating a disease characterized by amyloid  
2 deposit in a patient, comprising administering an effective dosage of an antibody that  
3 specifically binds to the amyloid deposit or a component thereof to the patient.
- 1                   2. The method of claim 1, wherein the disease is Alzheimer's disease.
- 1                   3. The method of claim 1, wherein the amyloid deposit comprises  
2 aggregated A $\beta$  peptide.
- 1                   4. The method of claim 1, wherein the patient is a human.
- 1                   5. The method of claim 1, wherein the patient is asymptomatic.
- 1                   6. The method of claim 1, wherein the patient is under 50.
- 1                   7. The method of claim 1, wherein the patient has inherited risk factors  
2 indicating susceptibility to Alzheimer's disease.
- 1                   8. The method of claim 1, wherein the patient has no known risk factors  
2 for Alzheimer's disease.
- 1                   9. The method of claim 2, wherein the antibody specifically binds to A $\beta$   
2 peptide.
- 1                   10. The method of claim 9, wherein the antibody is a human antibody.
- 1                   11. The method of claim 9, wherein the antibody is a humanized antibody.
- 1                   12. The method of claim 9, wherein the antibody is a chimeric antibody.
- 1                   13. The method of claim 9, wherein the antibody is a mouse antibody.
- 1                   14. The method of claim 9, wherein the antibody is a polyclonal antibody.
- 1                   15. The method of claim 9, wherein the antibody is a monoclonal  
2 antibody.
- 1                   16. The method of claim 14, wherein the antibody is a rabbit antibody.

1 17. The method of claim 1, further comprising administering an effective  
2 dosage of a second antibody that binds to the amyloid deposit or a component thereof.

1 18. The method of claim 15, wherein the isotype of the antibody is IgG1  
2 or IgG4.

1 19. The method of claim 15, wherein the isotype of the antibody is IgG2  
2 or IgG3.

1 20. The method of claim 9, wherein the antibody is a Fab fragment.

1 21. The method of claim 9, wherein a chain of the antibody is fused to a  
2 heterologous polypeptide.

1 22. The method of claim 9, wherein the dosage of antibody is at least 1  
2 mg/kg body weight of the patient.

1 23. The method of claim 9, wherein the dosage of antibody is at least 10  
2 mg/kg body weight of the patient.

1 24. The method of claim 9, wherein the antibody is administered with a  
2 carrier as a pharmaceutical composition.

1 25. The method of claim 9, wherein the antibody binds to an epitope  
2 within residues 1-28 of A $\beta$ ,

1 26. The method of claim 25, wherein the antibody binds to an epitope  
2 within residues 1-10 of A $\beta$

1 27. The method of claim 25, wherein the antibody binds to an epitope  
2 within residues 1-16 of A $\beta$ .

1 28. The method of claim 25, wherein the antibody binds to an epitope  
2 within residues 1-5 of A $\beta$ .

1 29. The method of claim 9, wherein the antibody is a human antibody to  
2 A $\beta$  prepared from B cells from a human immunized with an A $\beta$  peptide.

1 30. The method of claim , wherein the human immunized with A $\beta$  peptide  
2 is the patient.

1 31. The method of claim 9, wherein the antibody specifically binds to A $\beta$   
2 peptide without binding to full-length amyloid precursor protein (APP).

1 32. The method of claim 1, wherein the agent is administered  
2 intraperitoneally, orally, subcutaneously, intramuscularly, topically or intravenously.

1 33. The method of claim 1, wherein the antibody is administered by  
2 administering a polynucleotide encoding at least one antibody chain to the patient,  
3 wherein the polynucleotide is expressed to produce the antibody chain in the patient.

1 34. The method of claim 33, wherein the polynucleotide encodes heavy  
2 and light chains of the antibody, which polynucleotide is expressed to produce the heavy  
3 and light chains in the patient.

1 35. The method of 1, further comprising monitoring the patient for level  
2 of administered antibody in the blood of the patient.

1 36. The method of claim 1, wherein the antibody is administered in  
2 multiple dosages over a period of at least six months.

1 37. The method of claim 1, wherein the antibody is administered as a  
2 sustained release composition.

1 38. A method of preventing or treating Alzheimer's disease, comprising  
2 administering an effective dosage of a polypeptide comprising an active fragment of A $\beta$   
3 that induces an immune response to A $\beta$  in the patient.

1 39. The method of claim 38, wherein the fragment comprises an epitope  
2 within amino acids 1-12 of A $\beta$ .

1 40. The method of claim 38, wherein the fragment comprises an epitope  
2 within amino acids 1-16 of A $\beta$ .

1 41. The method of claim 38, wherein the fragment comprises an epitope  
2 within amino acids 13-28 of A $\beta$ .

1 42. The method of claim 38, wherein the fragment is free of at least the 5  
2 C-terminal amino acids in A $\beta$ 43.

1 43. The method of claim 38, wherein the fragment comprises up to 20  
2 contiguous amino acids from A $\beta$ .

1 44. The method of claim 39, wherein the fragment is administered with an  
2 adjuvant that enhances the immune response to the A $\beta$  peptide.

1 45. The method of claim 44, wherein the adjuvant and the agent are  
2 administered together as a composition.

1 46. The method of claim 44, wherein the adjuvant is administered before  
2 the agent.

1 47. The method of claim 44, wherein the adjuvant is administered after  
2 the agent.

1 48. The method of claim 44, wherein the adjuvant is alum.

1 49. The method of claim 44, wherein the adjuvant is MPL.

1 50. The method of claim 44, wherein the adjuvant is QS-21.

1 51. The method of claim 44, wherein the adjuvant is incomplete Freund's  
2 adjuvant.

1 52. The method of claim 44, wherein the dosage of the fragment is greater  
2 than 10 micrograms.

1 53. A pharmaceutical composition comprising an active fragment of A $\beta$   
2 effective to induce a response to AB in a patient and an adjuvant.

1 54. A method of screening an antibody to A $\beta$  or an active fragment of A $\beta$   
2 for use in treatment of Alzheimer's disease, comprising:

3 administering an antibody that specifically binds to A $\beta$  or a fragment of  
4 AB to a transgenic animal disposed to develop characteristics of Alzheimer's disease;

5 detecting a reduction in the extent or rate of development of the  
6 characteristics relative to a control transgenic animal.

1 55. The method of claim 54, further comprising screening a population of  
2 antibodies to identify an antibody that binds to an epitope within amino acids 1-28 of A $\beta$ .



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